for admission could be negated, enabling a 93.2% (96/103) day case rate, well surpassing the 67.2% rate observed in England during 2011/2012[2] and the EHS target of 80.0%.[3] Implementation of this recommendation and further review should enable NGH to reach the BADS target of 95.0%1 in the near future.

0536: OPTIMISING DAY CASE RATES FOR HERNIA REPAIR

Philip Stather, David Sidloff, Robert Hicks. *Northampton General Hospital, Northampton, UK.*

Aims: CQUIN guidelines state 80% of inguinal (IH) and 75% of umbilical hernia (UH) repairs should be performed as day case procedures. The study aims to ascertain the day case rate for hernia repair, and identify methods to optimise the day case rate.

Methods: Retrospective case notes review in a single district general hospital. All patients admitted between 1st April 2010 and 31st March 2011 were included. Variables measured included start time of the procedure, type of anaesthesia, and reason for overnight stay.

Results: All 483 patients admitted were included. Mean age 49.4 years (0.2-94 years). Day case rates were 76.1% for IH and 74.7% for UH. Laparoscopic, open (local anaesthetic) and open (general anaesthetic) procedures had an 83.8%, 76.5% and 73.5% day case rate respectively (P=0.02). Cases starting prior to 12:00 resulted in a day case rate of 88.7%, dropping to 59.3% on an afternoon list (P<0.0001). 113 patients were admitted overnight; 24.8% were planned admissions, 16.8% hadn't passed urine, (1 required catheterisation), and 9.7% due to pain.

Conclusions: The reasons for overnight stay following hernia repair are multifactorial. Hernia repairs should be performed laparoscopically on a morning list with regular analgesia. Unsuitable patients should undergo local anaesthetic repair.

0568: THE INCIDENCE OF CONTRAST-INDUCED NEPHROPATHY (CIN) FOLLOWING CONTRAST-ENHANCED COMPUTED TOMOGRAPHY (CECT): A CONTEMPORARY REVIEW

Victoria Bonello [1], J.E.F. Fitzgerald [2], Geraldine Darmanin [3], Frank Gollub [1]. [1] *Epsom and St Heliers University Hospitals NHS Trust, Epsom, UK;* [2] *Chelsea and Westminster NHS Foundation Trust, London, UK;* [3] *Whipps Cross University Hospital NHS Trust, London, UK.*

Aims: Contrast-enhanced computed tomography (CECT) is widely used in the investigation of surgical patients. CIN is a known complication with renal dysfunction, diabetes, advanced age and dehydration being important risk factors. We provide an overview of available data on the incidence of CIN following intravenous contrast administration.

Method: A systemic review was performed in line with the PRISMA statement. EMBASE and MEDLINE databases were searched using the terms 'contrast-induced nephropathy' and 'computed tomography'. Articles published in English with an available abstract during the last 10-years were included.

Results: Fourteen studies including 4,953 patients were identified. Three studies were randomised-control trials. In nine of the studies, CIN was diagnosed following an increase in serum Creatinine by 0.5mg/dL (>25% from baseline) within 48-72 hours of contrast administration. CIN incidence varied between 0-25%, however a heterogeneous population with specific patient characteristics was sampled: pre-existing renal insufficiency (8 studies); cirrhosis (2 studies); Emergency Department admissions (3 studies, 1 involving trauma patients); ICU patients (1 study).

Conclusion: The incidence of CIN following intravenous contrast administration is significant although it varies greatly across the patient spectrum. Surgeons should be aware of available guidance to facilitate their decision-making process when organising imaging for at-risk patients.

0586: IMPROVING THE MANAGEMENT OF ACUTE NON-OPERABLE SEPSIS IN A LARGE UK UNIVERSITY TEACHING HOSPITAL

Philip McElnay, Vandita Ralhan, Danielle Davies, Alex Sweeney, Roland Jenkins. *Bristol Royal Infirmary, Bristol, UK.*

Aim: The Surgical Infection Society endorse the 'Surviving Sepsis' guidelines which state antibiotics should be administered within 1 hour of diagnosis of septic shock or severe sepsis. We aimed to improve compliance with these guidelines.

Methods: All acute admissions over a 7-day period were audited to determine the time between clerking and antibiotic administration, and whether they were prescribed "STAT". All patients with non-operable septic shock or severe sepsis were included.

A re-audit after intervention was carried out 4 months later.

Interventions between the audit and re-audit included: a system for improving feedback to staff regarding delays in medication administration; a presentation at a meeting of junior doctors; and a "first dose: STAT dose" poster campaign.

Results: The chi-squared test was used to analyse the data. Between the initial audit (n=35) and re-audit (n=20) the percentage of patients receiving antibiotics within 1 hour of clerking improved from 34.29% to 50% (p=0.0630). The percentage of antibiotics prescribed "STAT" improved from 28.57% to 85% (p=0.0001).

Conclusion: "STAT" prescribing of antibiotics was improved (p=0.0001). A trend towards improvement in antibiotic administration within 1 hour was demonstrated. Educating doctors on timely antibiotic administration when managing sepsis should be an important focus to reduce mortality.

0611: CAN PROCALCITONIN LEVELS TELL US WHEN TO OPERATE? A DOUBLE BLINDED STUDY TO INVESTIGATE THE ROLE OF PLASMA PROCALCITONIN (PCT) LEVELS AS AN ADJUNCT MARKER IN CLINICALLY SUSPECTED APPENDICITIS

D.R. Cruttenden-Wood, M.A. Glaysher, B. Zeidan, K. Saeed, A.J. Miles. *Royal Hampshire County Hospital, Hampshire, UK.*

Aim: To determine the clinical value of plasma procalcitonin levels in acute unwell surgical adults. Can PCT help diagnose acute appendicitis and indicate when to operate.

Methods: Two month prospective double blinded pilot study in a DGH including all adults referred with suspected appendicitis. PCT levels were taken from fifty patient's admission bloods. Clinical decisions were made without knowledge of PCT testing. Management, operative findings were analysed to establish the diagnostic value of PCT.

Results: Mean age was 33.8yrs (16-32)(70% female). 48% underwent surgery; 17 had appendicitis, 1 inflamed Meckel's diverticulum, 6 negative laparoscopies. Therefore, 18 patients (36%) required surgery. PCT levels were 'highly significant'(>0.5mcg/l) in 50%(9/18) of patients requiring surgery. 32/50 patients ultimately did not require surgery, of these 100% had negative PCT levels. PCT had a sensitivity of 50%, specificity of 100% (PPV 100%, NPV 78%). WBC & CRP each had a sensitivity of 83% but the specificity reduced to 56% & 53% respectively. Combining tests improved diagnostic performance: 'WBC + PCT'; sensitivity 89%, specificity 53% (PPV 53%, NPV90%). Clinical evaluation was not statistically superior (p=0.288) as an indicator for surgery when compared to raised PCT levels alone.

Conclusions: Raised PCT levels in patients with suspected appendicitis indicate a necessity for surgery. The test does not provide false positive results, is highly sensitive and rarely misclassifies a sick patient as healthy.

0631: INITIAL MANAGEMENT OF ACUTE ABDOMINAL PAIN IN A&E AND THE RECEIVING WARD – IS IT 10/10?

Ashleigh Holt-Kentwell [1], Patricia Wells [1], Ian Thomas [1], Morag Hogg [2]. [1] *University of Aberdeen, Aberdeen, UK;* [2] *NHS Highland, Inverness, UK.*

We aimed to investigate how effectively acute abdominal pain (<72hrs onset) is managed in a district general hospital; both in Accident and Emergency (A&E) and the receiving surgical ward. Effective and timely pain relief is expected by patients, reduces psychological distress, and can reduce adverse pathophysiological effects.

A note review was performed for 52 patients with acute abdominal pain presenting to A&E. Pain assessment and analgesia administration was compared with The College of Emergency Medicine guidelines, regarding the management of acute pain in adults. Patients on strong regular pain medication were excluded.

41 patients were eligible for inclusion. In A&E, 7.7% of patients in severe pain received appropriate and timely analgesia in accordance with guidelines. 65.4% of patients received appropriate analgesia, but after a delay. Reassessment of moderate and severe pain was infrequent, with only 48.7% having pain reassessed within 60 minutes. On the receiving